

09/731,126

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

Claim 1 (withdrawn): A monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein p24 and Human Immunodeficiency Virus-2 protein p26.

Claim 2 (withdrawn): The monoclonal antibody of claim 1 wherein said antibody is selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 115B-303, and 108-394.

Claim 3 (withdrawn): A hybridoma cell line which secretes a monoclonal antibody which binds to a shared epitope Human Immunodeficiency Virus-1 protein p24 and Human Immunodeficiency Virus-2 protein p26.

Claim 4 (withdrawn): The hybridoma cell line of claim 3, wherein said cell line is selected from the group consisting of A.T.C.C. Deposit No. HB \_\_\_\_\_, A.T.C.C. Deposit No. HB \_\_\_\_\_, A.T.C.C. Deposit No. HB \_\_\_\_\_, A.T.C.C. Deposit No. HB \_\_\_\_\_, and A.T.C.C. Deposit No. HB \_\_\_\_\_.

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Claim 5 (currently amended) A method for detecting the presence of one or more antigens selected from the group consisting of HIV-1 antigen and HIV-2 antigen, in a test sample suspected of containing one or more of said antigens, comprising the steps of:

a) contacting said test sample with at least one monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein p24 and Human Immunodeficiency Virus-2 protein p26, wherein said at least one monoclonal antibody is selected from the group consisting of 120A-270 produced by hybridoma cell line PTA-3809, 115B-151 produced by hybridoma cell line PTA-2809, 117-289 produced by hybridoma cell line PTA-2806, 103-350 produced by hybridoma cell

line PTA-2808, 115B-303 produced by hybridoma cell line PTA-2810 and 108-394 produced by hybridoma cell line PTA-2807, for a time and under conditions sufficient for the formation of antibody/antigen complexes; and  
b) detecting said complexes, presence of said complexes indicating presence of at least one antigen selected from the group consisting of HIV-1 antigen and HIV-2 antigen, in said test sample.

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Claim 6 (cancel)

Claim 7 (currently amended): The method of ~~claim 6~~ claim 5 wherein said at least one monoclonal antibody of step (a) is labeled.

Claim 8 (currently amended): A method for detecting the presence of one or more antigens selected from the group consisting of HIV-1 antigen and HIV-2 antigen, in a test sample suspected of containing one or more of said antigens, comprising the steps of:

a) contacting said test sample with at least one monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein 24 and Human Immunodeficiency Virus-2 protein p26, wherein said at least one monoclonal antibody is selected from the group consisting of 120A-270 produced by hybridoma cell line PTA-3890, 115B-151 produced by hybridoma cell line PTA-2809, 117-289 produced by hybridoma cell line PTA-2806, 103-350 produced by hybridoma cell line PTA-2808, 115B-303 produced by hybridoma cell line PTA-2810 and 108-394 produced by hybridoma cell line PTA-2807, for a time and under conditions sufficient for the formation of antibody/antigen complexes;  
b) adding a conjugate to the resulting antibody/antigen complexes for a time and under conditions sufficient to allow said conjugate to bind to the bound antigen, wherein said conjugate comprises an antibody attached to a signal generating compound capable of generating a detectable signal; and  
c) detecting presence of antigen which may be present in said test sample by detecting a signal generated by said signal generating compound, presence of said signal indicating presence of at least one antigen selected from the group consisting of HIV-1 antigen and HIV-2 antigen in said test sample.

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Claim 9 (cancel)

Claim 10 (currently amended): The method of claim 8 wherein said antibody of step (b) b) of said conjugate is selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 115B-303, and 108-394.

Claim 11 (currently amended): The method of claim 8 wherein said at least one monoclonal antibody of step (a) a) is selected from the group consisting of ~~120-270~~ 120A-270, 108-394 and 115B-303, and said antibody of step (b) b) of said conjugate is selected from the group consisting of 117-289 and 115B-151.

Claim 12 (currently amended): The method of claim 11 wherein said at least one monoclonal antibody of step (a) a) is 120A-270 and said antibody of step (b) b) of said conjugate is 115B-151.

Claim 13 (currently amended): A method for detecting the presence of one or more antigens selected from the group consisting of HIV-1 antigen and HIV antigen, in a test sample suspected of containing one or more of said antigens, comprising the steps of:

- (a) contacting: 1) at least one monoclonal antibody which binds to a shared epitope of HIV-1 p24 antigen and HIV-2 p26 antigen bound to a solid support, wherein said at least one monoclonal antibody is selected from the group consisting of 120A-270 produced by hybridoma cell line PTA-3890, 115B-151 produced by hybridoma cell line PTA-2809, 117-289 produced by hybridoma cell line PTA-2806, 103-350 produced by hybridoma cell line PTA-2808, 115B-303 produced by hybridoma cell line PTA-2810 and 108-394 produced by hybridoma cell line PTA-2807, 2) said test sample, and 3) an indicator reagent comprising an antibody which binds to HIV-1 antigen and HIV-2 antigen to which a signal generating compound is attached, to form a mixture;
- (b) incubating said mixture for a time and under conditions sufficient to form antibody/antigen/antibody complexes;
- (c) detecting presence of a measurable signal generating by said signal-generating compound, presence of said signal indicating presence of one or more antigens in said test sample selected from the group consisting of HIV-1 antigen and HIV-2 antigen.

Claim 14 (cancel)

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Claim 15 (previously presented): The method of claim 13 wherein said antibody of said indicator reagent of step (a) is selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 115B-303 and 108-394.

Claim 16 (currently amended): The method of claim 13 wherein said at least one monoclonal antibody of step (a) is 120A-270 and said antibody of said indicator reagent of step (a) is 115B-151.

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Claim 17 (withdrawn): A kit for determining the presence of one or more antigens selected from the group consisting of HIV-1 antigen and HIV-2 antigen in a test sample comprising: (a) at least one monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein p24 and Human Immunodeficiency Virus-2 protein p26; and (b) a conjugate comprising an antibody attached to a signal generating compound capable of generating a detectable signal.

Claim 18 (withdrawn): The kit of claim 17 wherein said at least one monoclonal antibody of (a) is selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 115B-303 and 108-394.

Claim 19 (withdrawn): The kit of claim 17 wherein said antibody of (b) is selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 115B-303 and 108-394.

Claim 20 (withdrawn): A diagnostic reagent comprising at least one monoclonal antibody selected from the group consisting of 120A-270, 115B-151, 117-289, 103-350, 108-394 and 115B-303.

Claim 21 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:1.

Claim 22 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:2.

Claim 23 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:3.

Claim 24 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:4.

Claim 25 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:5.

Claim 26 (withdrawn): An isolated peptide comprising the amino acid sequence of SEQ ID NO:6.

Claim 27 (withdrawn): A method of detecting 1) one or more antibodies selected from the group consisting of HIV-1 antibody and HIV-2 antibody, and 2) one or more antigens selected from the group consisting of HIV-1 antigen and HIV-2 antigen, in a test sample suspected of containing said one or more of said antibodies and one or more of said antigens, comprising the steps of:

- a) contacting said test sample with at least one HIV-1 antigen which binds to HIV-1 antibody for a time and under conditions sufficient for the formation of HIV-1 antigen/HIV-1 antibody complexes;
- b) detecting said HIV-1 antigen/HIV-1 antibody complexes, presence of said complexes indicating presence of HIV-1 antibody in said test sample;
- c) contacting said test sample with at least one HIV-2 antigen which binds to HIV-2 antibody for a time and under conditions sufficient for the formation of HIV-2 antigen/HIV-2 antibody complexes;
- d) detecting said HIV-2 antigen/HIV-2 antibody complexes, presence of said complexes indicating presence of HIV-2 antibody in said test sample;
- e) contacting said test sample with at least one monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein p24 and Human Immunodeficiency Virus-2 protein p26 for a time and under conditions sufficient for the formation of antibody/antigen complexes; and
- f) detecting said complexes, presence of said complexes indicating presence of at least one antigen selected from the group consisting of HIV-1 antigen and HIV-2 antigen, in said test sample.

Claim 28 (withdrawn): A method of detecting 1) one or more antibodies selected from the group consisting of HIV-1 antibody and HIV-2 antibody, and 2) one or more antigens selected from the group consisting of HIV-1 antigen and HIV-2

antigen, in a test sample suspected of containing said one or more of said-antibodies and one or more of said antigens, comprising the steps of:

- a) contacting said test sample with at least one HIV-1 antigen which binds to HIV-1 antibody for a time and under conditions sufficient for the formation of HIV-1 antigen/HIV-1 antibody complexes:
- b) adding a conjugate to the resulting HIV-1 antigen/HIV-1 antibody complexes for a time and under conditions sufficient to allow said conjugate to bind to the bound antibody, wherein said conjugate comprises an antigen attached to a signal generating compound capable of generating a detectable signal;
- c) detecting HIV-1 antibody which may be present in said test sample by detecting a signal generated by said signal generating compound, presence of said signal indicating presence of HIV-1 antibody in said test sample;
- d) contacting said test sample with at least one HIV-2 antigen which binds to HIV-2 antibody for a time and under conditions sufficient for the formation of HIV-2 antigen/HIV-2 antibody complexes:
- e) adding a conjugate to the resulting HIV-2 antigen/HIV-2 antibody complexes for a time and under conditions sufficient to allow said conjugate to bind to the bound antibody, wherein said conjugate comprises an antigen attached to a signal generating compound capable of generating a detectable signal;
- f) detecting HIV-2 antibody which may be present in said test sample by detecting a signal generated by said signal-generating compound, presence of said signal indicating presence of HIV-2 antibody in said test sample;
- g) contacting said test sample with at least one monoclonal antibody which binds to a shared epitope of Human Immunodeficiency Virus-1 protein 24 and Human Immunodeficiency Virus-2 protein p26 for a time and under conditions sufficient for the formation of antibody/antigen complexes;
- h) adding a conjugate to the resulting antibody/antigen complexes for a time and under conditions sufficient to allow said conjugate to bind to the

bound antigen, wherein said conjugate comprises an antibody attached to a signal generating compound capable of generating a detectable signal; and  
i) detecting presence of antigen which may be present in said test sample by detecting a signal generated by said signal generating compound, presence of said signal indicating presence of at least one antigen selected from the group consisting of HIV-1 antigen and HIV-2 antigen in said test sample.